

3.0 ALTERNATIVES

3.1 INTRODUCTION

This section explains alternatives to the primary Army action (excess property disposal) and to the secondary action (property reuse) to be accomplished by other parties.

Disposal alternatives are developed to help the Army decide whether to dispose of the property with or without restrictions, or "encumbrances." Encumbered and unencumbered disposal alternatives, as well as a No Action Alternative, will be evaluated. Future reuse of excess JPG property is analyzed in the context of high, medium, and low land use intensity levels as defined in Section 3.4. These land use intensity based scenarios are used to inform Army decision makers of environmental impacts expected to occur given the range of reuses future property owners may implement.

3.2 NO ACTION ALTERNATIVE

Closure of the JPG and realignment of the installation's missions and activities has been mandated by law. The Army has initiated the process required for preparation of excess JPG property for disposal as described in Section 2.2. If the property is not transferred or sold to other parties by the end of this process, the installation will be maintained in caretaker status, the no action alternative. Conditions under the no action alternative will be compared to the 1989 baseline, when the JPG was fully operational, as well as to projected conditions associated with each of the reuse scenarios.

Under the no action alternative, the Army would maintain and preserve the JPG facility in accordance with Department of the Army Public Works Bulletin 420-10-8 (DA 1993). That directive provides that installation real property maintenance will include "work necessary to maintain a minimum essential standard for tenant organizations prior to closure, prevent deterioration of sale value, comply with transfer directives, and avoid unnecessary adverse impacts on the local community." Actions that are currently planned to implement and maintain caretaker operations until property disposal include the following:

- Inspect and maintain utility systems, telecommunications, and roads to the extent necessary to avoid irreparable deterioration, and use the utility systems as necessary to avoid their deterioration;

- Periodically maintain landscapes around unoccupied structures, as necessary, to protect the structure from fires or nuisance conditions;

- Maintain access onto the installation to permit the service and maintenance of publicly or privately owned utility or infrastructure systems;

- Continue installation security patrols and maintenance of security systems and maintain perimeter fences;

- Maintain responsibility for fire prevention and protection service (but the Army would likely seek contracts for these services from others);

- Continue to provide access to people authorized recreation and access privileges to the installation; and

- Continue natural resources management programs including land management, pest control, forest management, and erosion control.

Two areas of particular concern under the no action alternative relate to installation security and provision for ongoing hazardous waste remediation efforts to ensure continued safety of communities surrounding the JPG.

Security will continue at a level sufficient to preserve safety of personnel from potential hazards presented by UXO, to maintain the integrity of the perimeter fencing, and to otherwise retain at present levels the security of the installation. Army personnel and caretaker force contractor personnel will utilize written Emergency Response, Physical Security, Safety, Fire Response, Disaster Control, and Severe Weather Plans to support the objectives of safety and preservation of assets. Prior to closure, the Army expects completion of new fencing along the firing line to deter potential intrusion by users or occupants of the cantonment area into the impact areas to the north. Additionally, the Army has awarded a contract for the upgrade and repair of the 48 miles of perimeter fencing surrounding the installation. During caretaker operations, security patrols will regularly tour the perimeter areas to conduct visual inspections of the fences and locks at the several gates around the JPG. In the event security patrols find persons who have breached the fencing or gates and trespassed in restricted areas, civil law enforcement agencies may be called upon in light of the recent retrocession of legislative jurisdiction to the State of Indiana.

The *JPG Base Realignment and Closure Cleanup Plan* provides an exhaustive survey of actions taken, in progress, or proposed for the cleanup of hazardous waste sites. The plan provides for development of a comprehensive restoration site strategy that is to take into account cleanup requirements and reuse priorities. Criteria for development of such a strategy include risk to human health and the environment, effect on property reuse, and scope (time required for cleanup and possible use of existing contract vehicles for completion of work elements). Evaluation of potential risk to human health is a continuing effort. Samples at present groundwater monitoring wells will continue to be analyzed for the presence of or potential for migration of contaminants. Such wells currently exist in the vicinity of the Depleted Uranium Range, the Gate 19 Landfill, and the Open Burning area. Additional wells may be installed as circumstances dictate, such as information that may come to light as a result of the Remedial Investigation or possibly other sources of information pointing to a need for heightened attention to potential contaminant migration. The scope of the ongoing RI/FS includes groundwater and surface water sampling and analyses. Just as in normal base operations, the caretaker function is designed to retain the Army's attentiveness to potential risks to human health and to continue to execute the *JPG Base Realignment and Closure Cleanup Plan*. Where that plan indicates the need for additional sampling regarding potential contaminant migration, the Army will undertake sampling and analysis efforts to target specific analytes, sampling locations, and sampling frequencies.

3.3 FORMULATION AND DESCRIPTION OF DISPOSAL ALTERNATIVES

The proposed action for JPG is disposal. Alternatives for disposal are listed below:

- Encumbered disposal,
- Unencumbered disposal, and
- No disposal (no action alternative/caretaker status).

The following subsections describe the encumbered and unencumbered alternatives to provide the basis for evaluation of potential impacts in Chapter 5.

3.3.1 Total Installation versus Parcel Disposal

The JPG is not likely to be disposed of as one parcel, principally because of its size and the time needed to restore various portions to acceptable conditions for reuse. The Army wishes to dispose of individual parcels of land as they become available. This EIS discusses excess property according to the study areas described in Section 2.4.1. These study areas should not be interpreted as real estate disposal parcels, but rather as areas delineated to facilitate the NEPA impact evaluation process.

3.3.2 Explanation of Encumbered versus Unencumbered Disposal

In disposing of the JPG, the Army must take into account those factors having potential environmental impacts. A useful analytic tool for exposing the causes of impacts is identification of encumbrances associated with the proposed action. To varying degrees, the Army may be able to control encumbrances (as defined below) and, accordingly, their impacts. Consideration of encumbrances also helps in identifying cost, temporal requirements, and reuse suitability factors. Altogether, these factors influence ultimate selection of the way in which the Army will dispose of the property. The following discussion identifies necessary understanding related to encumbered and unencumbered disposal.

Encumbered Disposal. Encumbrances are those circumstances which tend to limit use of property. Encumbrances can support future Army interests, regulatory and statutory compliance, hastened availability of property, and mitigation requirements. Creation of encumbrances must be weighed against loss of land use planning flexibility or market value, potential increased management burdens on subsequent owners, and potential increased vulnerability of future property owners to liabilities associated with failure to comply with encumbrance-related restrictions. Creation or removal of encumbrances requires considerable forethought regarding future benefits and burdens.

Encumbrances can be natural or result from Army activities or decisions. Natural encumbrances are those associated with and arising from natural resources such as wetlands and critical habitat. Army-generated encumbrances appear to be more numerous and varied. Seven major categories of encumbrances can be identified:

Special Easements. While much real estate is burdened for maintenance of utility systems, roadways, or other infrastructure, such easements tend not to adversely affect the uses to which an owner may put his property. The special easements category includes, for instance, access to groundwater monitoring wells or continuation of caretaker maintenance on parcels not yet disposed of.

Special Use Restrictions. This category of encumbrance relates to development restrictions or constraints to which subsequent owners would be subject. Special use restrictions may arise from existing conditions of the property, or they may be created in recognition of other land uses. The following examples help to illustrate this category:

Existing small arms range. Residue wastes in impact berms or impact areas could lead to restrictions prohibiting the use of the land for specified purposes (e.g., agriculture).

Prior landfill site. Typical special use restrictions related to a prior landfill site would include prohibitions against certain surface actions such as disturbing a clay landfill cap or modifying drainage, ventilation, or groundwater monitoring systems.

Restricted access. Portions of conveyed property may support on-going remedial activities such as a groundwater pump-and-treat facility. Special use restrictions would prohibit entry into or interference with remedial operation and maintenance facilities.

Timing considerations. Typically based on hazardous waste remediation requirements, property may be available for interim leasing but unavailable for sale or transfer until a certain date (i.e., EPA certification of successful operation of remedial measures).

Buffer zones. Restrictive covenants may be imposed to create or maintain buffer zones between sensitive areas or adjoining parcels bearing incompatible uses. Examples of such sensitive areas are gunnery ranges, unexploded ordnance areas, and unique plant or wildlife habitats.

Enhanced Habitat Protection. Mitigation options related to impacts on habitat occupied by or available for federally or state listed endangered or threatened species of plants or wildlife could include land use encumbrances. Wetlands would be considered an encumbrance when the proposed or most probable reuse of a parcel would result in a direct or indirect impact on the resource.

Enhanced Historic Building Protection. Through use of property sale or transfer covenants, encumbrances may be created to require a new owner to maintain significant historic buildings.

Enhanced Archaeological Site Protection. Through use of property sale or transfer covenants, encumbrances may be created to require a new owner to protect archaeological sites.

o *Special Water Rights.* Protective covenants or transfer of water rights may be required to protect existing wellfields or aquifers.

Special Resource Dependencies. Utilities operated by the Army as a single system create dependencies in future owners unless the systems are individualized to separate parcels or facilities thereof. Wastewater collection and treatment, potable water supply and distribution, solid waste, phone, gas, electric, and storm drainage must be available to each property. An encumbrance would exist wherever a parcel's use depends on an intermediary provider of these services.

It is Army policy generally to create encumbrances only when required by a specific Army need or, as a result of formal negotiations, an outside agency. It is also Army policy not to expend funds to unencumber property solely to increase its market value.

Encumbrances and their effects on reuse may vary depending on planned reuse. For example, a former landfill site would be considered unencumbered for passive recreation use but encumbered for single family housing. Depending on degree of waste contamination or other hazards, a range impact area might be considered unencumbered for continued use as a range by another federal agency but encumbered for unlimited development undertaken by the private sector.

Unencumbered Disposal. The unencumbered disposal alternative is included in order to identify and evaluate the potential to remove encumbrances allowing the property to be disposed of with less or no Army imposed restrictions to future use.

3.3.3 Relationship of Encumbered and Unencumbered Alternatives to Local Reuse Plan

Army policy states that the local community's recommended reuse plan will be considered in the development and evaluation of the encumbered and unencumbered disposal alternatives. In the absence of input from the local community in time to meet the EIS timeline, or if proposed plans conflict with statutory or regulatory requirements, Army policy states that the encumbered versus unencumbered alternatives will be developed based on the most likely reuse. Table 3-1 summarizes proposals for each of the Study Areas. Potential environmental impacts of these reuse intensity levels are analyzed in Chapter 5.

Table 3-1. Community Reuse Recommendations.			
Stud Area	Acres	Reuse Intensity	Comments
1. Wildlife Refuge	45,000 to 53 000	Low	Conservation and preservation of natural resources
2. Cantonment Area	4 320	Low Medium High	Business development
3. Southeastern Reserve	1,500	Low, Medium, High	Business development; waste facility; roadway improvement
4. Northeastern Reserve	500	Low, Medium, High	Business development; waste facility
5. Northeast Corner	640	Low, Medium High	Business development -
6. Holton Parcel	130	Low Medium High	Business development
7. Right of Way	240	Medium	Roadway improvement
8. Northwestern Parcel	400	Low Medium High	Business development
9. Low-water Crossings	75	Low	Alternate roadway access
10. Southwestern Reserve	1 100	Low Medium High	Business development
11. Air Gunnery Range	1 033	Low	Military training
12. East-West Corridor	140	Medium	Road construction
Note: Based on continuing discussions with community leaders in the JPG region, the current FWS request for 53,000 acres may be reduced to approximately 45,000 acres to accommodate local economic development opportunities.			

3.3.4 Encumbrances Applicable to Study Areas

Based on rationale and factors discussed in the preceding sections, encumbered and unencumbered disposal alternatives for the 12 study areas have been established. Nine encumbrances have been formulated for JPG and are listed below:

Unexploded ordnance

Depleted uranium

Surface water quality protection

- Air gunnery range buffer
- Utilities interdependencies
- Historical resources
 - Remediation activities
 - Reversionary clauses
- Wetlands
- Endangered Species

Following description of the affected environment, these encumbrances are more fully identified in Section 4.15.

3.4

FORMULATION AND DESCRIPTION OF REUSE SCENARIOS

Consistent with Congress' mandate, the Army must cease performance of active missions on the JPG property no later than September 30, 1995. This will render the property excess, leading to disposal and reuse. Depending on numerous factors, including information brought to light by this EIS, disposal may occur as a single event involving the entire facility to one or more subsequent owners. It may also occur over time with multiple transactions to the same or several new owners. Regardless of the method of disposal, timing, or identity of the new owners, reuse of the JPG is reasonably foreseeable.

CEQ regulations require evaluation of reasonably foreseeable actions, without limitation on the party conducting them, and evaluation of consequent environmental impacts. This EIS analyzes JPG facility reuse which is expected to occur. Identification of the nature of the reuse cannot be achieved precisely; the community reuse plan provides a starting point. This EIS focuses on the evaluation of the Army action of disposal. Reuse of the property is evaluated as a secondary action. The following subsections discuss the methodology used to define the reuse scenarios to be considered.

3.4.1

Reuse Planning Process

Appendix B provides overview information concerning the JPGRDB's evaluation of reuse potential for the JPG. Appendix C provides selected documents associated with the FWS's request for transfer of the property to create a wildlife refuge. The general reuse patterns described in Appendix C would not materially change if the FWS's current request for 53,000 acres were reduced to only the acreage north of the firing line in order to accommodate community interests in economic redevelopment of perimeter areas of the JPG.

3.4.2

Development of Reuse Scenarios

Recognizing the dynamics of the reuse planning process, the Army has identified three levels of development intensity that represent a full range of reuse activities that could occur at the JPG. The intensity based reuse scenarios are referenced as the high intensity reuse scenario (HIR), medium intensity reuse scenario (MIR), and low intensity reuse scenario (LIR). In the context of this analysis, reuse intensity may be viewed as a continuum in which high intensity reuse would be characterized by full build-out and a considerable amount of activity and low intensity reuse would be characterized by there being minimal activity occurring at the site.

These land use intensities refer to the ratio of persons, households, or volume of building or development to some unit of land area. Intensity parameters typically include floor area ratios, site coverage, and density of population associated with each type of use (employees, commercial, or residential). Land use planners use intensity predictions to aid the prevention of overcrowding and the preservation of environmental amenities.

Land use planning intensity standards vary considerably. No national standards exist to describe what building size, number of employees, and associated vehicular daily trips constitutes medium intensity land use for a commercial area, nor is there any standard for

Table 3-2. Land Use Intensity Parameters.				
Intensity/Land Use Types	Impervious Surface Ratio'	Employee Density	DUs per Acre'	Vehicle Trips ⁴
LOW INTENSITY				
Preserve/Passive e Park	0.05	0.03/acre	na	0.50/acre
Community Park	0.05	0.04/acre	na	10.7/acre
Golf Course	0.05	0.10/acre	na	8.33/acre
Residential	0.20	na	2.5	9.55/DU
MEDIUM INTENSITY				
Office/Research Park	0.70	1/350 sf	na	2.67/empl
College/Institutional	0.60	32/acre	na	2.4/person
Residential	0.30	na	9	6.95/DU
HIGH INTENSITY				
Office/Business Park	0.70	1/250 sf	na	4/empl
Commercial	0.85	1/500 sf	na	46.81/1000 sf
Light Industrial	0.85	1/500 sf	na	3.34/empl l
Residential	0.45	na	15	5.86/DU

what number of dwellings per acre and population constitute low intensity use in a residential area. Table 3-2 represents standards appropriate to the evaluation of the JPG facility.

Table 3-3 summarizes the allocation of use intensities to each of the 12 Study Areas under the HIR, MIR, and LIR scenarios. Study Area 1, a wildlife refuge, is evaluated only at low intensity reuse. Medium intensity or high intensity reuse evaluation of the area would be inconsistent with the proposed use and inappropriate under the special circumstances created by presence of unexploded ordnance (see Section 4.15). Study Areas 7 and 12, proposed roadways, are evaluated at only the medium intensity level. Assignment of this level is appropriate because of the impacts associated with construction and consequent effects on the environment of a road would not, in this locale, generally be deemed low or

high intensity. Study Area 9 reflects the JPGRDB's proposal to gain access to two low water crossings. Higher intensity use levels would not apply, as these existing sites would bear little traffic because they are in a remote area. Study Area 11, the proposed continuation of use of an air gunnery range, is assigned a low intensity reuse because there is no construction involved and there would be limited, intermittent use.

Table 3-3. Use Intensity. Allocations.			
Stud Area	Reuse Alternatives Analyzed		
	Low Intensity	Medium Intensity	High Intensity
1. Wildlife Refuge	o		
2. Cantonment Area	o	o	o
3. Southeastern Reserve	o	o	o
4. Northeastern Reserve	o	o	o
5. Northeastern Corner	o	o	o
6. Holton Parcel	o	o	o
7. Right of Way		o	
8. Northwestern Parcel	o	o	o
9. Low-water Crossings s	o		

The HIR scenario assumes that the JPG assets reasonably capable of supporting high intensity use will ultimately be developed to this level. High intensity land use types are expected to generate high levels of building mass or density, employment, residential population, and traffic. The MIR scenario assumes development with land use types that result in moderate impacts with respect to building mass and density, population, employment, and traffic generation. The LIR scenario assumes that existing low intensity areas at the JPG would generally remain at this level of land use intensity and that buildings and types of activities that are currently present would not be significantly modified or expanded. Relative to the HIR and MIR scenarios, the LIR scenario would generate minimal building mass and density, population, employment, and traffic.

3.4.3 Land Use Intensity Categories

The reuse scenario formulation process begins with the identification and allocation of specific land uses to the appropriate reuse intensity category. For example, based on land use intensity criteria, uses such as commercial, office, industrial, and high density residential are assigned to the HIR scenario, and uses such as open space, parks, golf courses, and low density residential are assigned to the LIR scenario.

The effects of future reuse actions can be identified and analyzed by the application of selected land use intensity criteria and associated multipliers (Table 3-2) which can be used to calculate an average intensity and associated impacts for each reuse intensity scenario.

As indicated in Table 32, examples of intensity criteria are floor area ratio, building site coverage, or dwelling unit density. Associated with the various intensity criteria are multipliers used to measure and quantify the degree of intensity and related impacts. These multipliers, generally expressed as ratios which are applicable to certain land use types, form the basis for the analysis of the absolute and relative impacts of the HIR, MIR, and LIR scenarios.

3.5 COMPARISON OF DISPOSAL ALTERNATIVES

Section 4.15 identifies existing and potential encumbrances to disposal of the JPG. Section 5.4 analyzes impacts the presence or absence the encumbrances would have on resource attributes at the time of disposal. Based on those presentations, Table 34 compares the positive and negative qualities of the encumbrances. Evaluations of the positive and negative qualities take into account the likelihood that predicted impacts would occur and whether they would be direct or indirect.

The Army's complying with requirements to screen excess property, effecting coordination with local redevelopment authorities, and executing real estate conveyance actions require substantial time and effort. The President's Five Point Plan guides Army efforts to assist communities in maximizing land use and economic redevelopment opportunities presented by disposal of Army installations. To accommodate all these factors, it is likely that the Army will find it necessary to implement caretaker actions for some period of time. Thereafter, based on Table 3-4, the Army's preferred alternative would be encumbered disposal of the JPG property.

Table 3-4 Comparison of Encumbered and Unencumbered Disposal Alternatives	
Positive Qualities of Encumbered Disposal Alternative	Positive Qualities of Unencumbered Disposal Alternative
Maintains consistency with adjacent land use	Permits local market to determine uses
Protects human health	Allows unfettered economic development
Allows economic development to begin sooner	
Preserves visual resources	
Preserves archaeological and historic resources	
Aids government's remedial actions	
Protects biological resources	
Protects surface water quality	

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